

Patent US 210
Edwards Ref: RMI-5726
(formerly 260/008)

IN THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

1. (Currently Amended) A filter, comprising:
a tubular member;
a shaft extending through the tubular member;
an expansion frame mounted on the distal end of the shaft, the expansion frame expandable between a contracted condition and an expanded condition, the expansion frame including a flexible ring;

a flexible cantilever beam having a first cross-section, wherein the cantilever beam is configured to slideably extend from a distal end of the shaft and bisects contacts the expansion frame at a first point on the cantilever beam [[,]] and contacts the expansion frame at a distal end of the flexible cantilever beam, the flexible cantilever beam having a weakened region with a second cross-section, wherein the second cross-section is smaller than the first cross-section including a wire having a weakened region; and

a filter mesh attached to the expansion frame.

2. (Canceled)

3. (Canceled)

4. (Canceled)

5. (Original) The filter of claim 1, wherein the flexible cantilever beam comprises a nitinol tube of generally cylindrical shape.

6. (Previously Presented) The filter of claim 1, wherein the flexible cantilever beam is constructed from a composite of materials.

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7. (Previously Presented) The filter of claim 1, wherein the flexible cantilever beam is constructed of bare wire, plastic tube, and metal outer sheath.

8-17. (Canceled)

18. (Currently Amended) A method for filtering blood, comprising:
providing a tubular member, a shaft extending through the tubular member, an expansion frame mounted on the distal end of the shaft, a flexible cantilever beam having a first cross-section, wherein the cantilever beam that slideably extends from a distal end of the shaft and bisects the expansion frame, and contacts the expansion frame at a first point on the cantilever beam and is bonded to the expansion frame at a distal end of the flexible cantilever beam, and wherein the flexible cantilever beam has a weakened region with a second cross-section, wherein the second cross-section is smaller than the first cross-section including a wire having a weakened region, and a filter mesh attached to the expansion frame;
inserting a cannula into a vessel;
inserting the tubular member into a port on the cannula;
advancing the filter mesh into the vessel;
deploying the filter mesh within the vessel; and
removing the filter mesh from the vessel.

19-32. (Canceled)